Test Report
Aggregate Stripping Value

Project Name	1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division2. Improvement of roads and drain at kattigenahalli kuvempunagara cross road in ward no 05 byatarayanapura sub division3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division5. Improvement of roads and drain at nirantara layout in ward no 05 byatarayanapura sub division6. Improvement of drain and asphalting to road at agrahara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division
Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2018-
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. A. CHENNAREDDY
Test Method	IS : 6241 - 1971 & Specification for Road & Bridge Works, MORT&H, Revision V.
Location	Hot Mix Plant
Material	Coarse Aggregates / Bitumen
Sample No	1
Date	17-Oct-2018
Type of Aggregate	Coarse Aggregate
Type of Binder	60 / 70 Grade
Percentage of Binder Used	5% by weight
Total weight of Aggregate	200 gms
Total weight of Binder	10 gms
Temperature of water bath	40^0C

Observation Number	Stripping Percentage	Average Percentage	Average Retained Coating (%)
1	3.4	3.4	96.6
2	3.5		
3	3.3		

Comments: Minimum allowable Aggregate Stripping Value for Bituminous Concrete is 95%

Note:

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For Mecadez Core Technologies Private Limited

Authorised Signature

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report

Specific Gravity and Water Absorption

Project Name	1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division2. Improvement of roads and drain at kattigenahalli kuvempunagara cross road in ward no 05 byatarayanapura sub division3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division5. Improvement of roads and drain at nirantara layout in ward no 05 byatarayanapura sub division6. Improvement of drain and asphalting to road at agrahara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division
Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2018-19/P-
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. A. CHENNAREDDY
Test Method	IS: 2386 (Part - 111) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Hot Mix Plant
Material	Coarse Aggregates
Sample No	1
Date	17-Oct-2018

Sl. No.	Particulars	Computations	Test Numbers		Mean
			Test 1	Test 2	
1	Weight of Empty Basket Immersed in Water	W_1 g	761	763	
2	water	W_2g	2070	2050	
3	Weight of Saturated Aggregate in water	W_sg = W_2- W_1	1309	1287	
4	Weight of saturated surface dry aggregate in Air	W_3 g	2105	2075	
5	Aggregate	W_3- W_s	796	788	
6	Weight of Oven dried Aggregate	W_4g	2066	2046	
7	Specific Gravity	W_4/(W_3- W_s)	2.60	2.60	2.60
8	Apparent Specific Gravity	W_4/(W_4- W_s)	2.73	2.70	2.71
9	Water Absorption	(W_4- W_3)*100/ W_4	1.89	1.42	1.66

Comments: Maximum allowable Aggregate Water Absorption value for Bituminous Concrete is 2.0%.

Note:

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For Mecadez Core Technologies Private Limited

Authorised Signature

Asst. Executive Enginee
Project Divisior
Yelahanka Zone
Bangalore

Test Report
Aggregate Gradation

Project Name	1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division2. Improvement of roads and drain at kattigenahalli kuvempunagara cross road in ward no 05 byatarayanapura sub division3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division5. Improvement of roads and drain at nirantara layout in ward no 05 byatarayanapura sub division6. Improvement of drain and asphalting to road at agrahara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division
Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2018-19/P-8/03/QR
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. A. CHENNAREDDY
Test Method	IS : 2386 (Part - 1) 1963 & Specification for Road & Bridge Works, MORT&H, Rev. V.
Location	Hot Mix Plant
Material	Coarse Aggregates
Sample No	1
Date	19-Oct-2018

Weight of Sample: 4000 gms

Sl. No.	I.S. Sieve size (mm)	Weight Retained (gm)	Percentage of weight Retained (%)	Cumulative Percentage of weight retained (%)	Cumulative % of Passing		Remarks
					Test Result	Gradation Limits as per MORT&H	
1	19.00	0	0.00	0.00	100.00	100	Gradation satisfies the MORT&H Grade ll Specification for Bituminous Concrete
2	13.20	671	16.78	16.78	83.23	72-100	
3	9.50	419	10.48	27.25	72.75	70-88	
4	4.75	235	5.88	33.13	66.88	53-71	
5	2.36	487	12.18	45.30	54.70	42-58	
6	1.18	322	8.05	53.35	46.65	34-48	
7	0.60	425	10.63	63.98	36.03	26-38	
8	0.30	379	9.48	73.45	26.55	18-28	
9	0.15	382	9.55	83.00	17.00	12-20)	
10	0.075	373	9.33	92.33	7.68	(4-10)	

Note:

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Stability of Mix

Project Name	1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division2. Improvement of roads and drain at kattigenahalli kuvempunagara cross road in ward no 05 byatarayanapura sub division3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division5. Improvement of roads and drain at nirantara layout in ward no 05 byatarayanapura sub division6. Improvement of drain and asphalting to road at agrahara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division
Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2018-19/P-8/03/QR
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. A. CHENNAREDDY
Test Method	Specification for Road & Bridge Works, MORT&H, Revision V.
Location	Bay
Material	Bituminous Concrete mix
Sample No	1
Date	20-Oct-2018

Sl. No.	Description	Unit	Test 1	Requirements as per MORT&H
1	Marshal Stability	KN	**9.6**	9 KN (min)
2	Marshal Flow	mm	**3.5**	2 – 4 mm
3	Percent of Air Voids in mix	%	**4.8**	3 – 6 %
4	Percent of Voids in Mineral Aggregates filled with Bitumen	%	**72**	65 – 75 %
5	Density	g/cc	**2.21**	2.22 g/cc

Note:

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Stability of Mix

Project Name	1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division2. Improvement of roads and drain at kattigenahalli kuvempunagara cross road in ward no 05 byatarayanapura sub division3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division5. Improvement of roads and drain at nirantara layout in ward no 05 byatarayanapura sub division6. Improvement of drain and asphalting to road at agrahara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division
Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2018-19/P-8/03/QR
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. A. CHENNAREDDY
Test Method	Specification for Road & Bridge Works, MORT&H, Revision V.
Location	Bay
Material	Bituminous Concrete mix
Sample No	2
Date	20-Oct-2018

Sl. No.	Description	Unit	Test 1	Requirements as per MORT&H
1	Marshal Stability	KN	**9.8**	9 KN (min)
2	Marshal Flow	mm	**3.6**	2 – 4 mm
3	Percent of Air Voids in mix	%	**4.9**	3 – 6 %
4	Percent of Voids in Mineral Aggregates filled with Bitumen	%	**69**	65 – 75 %
5	Density	g/cc	**2.22**	2.22 g/cc

Note:

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Asst. Executive Engineer
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Yelahanka Zone
Bangalore

Test Report
Stability of Mix

Project Name	1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division2. Improvement of roads and drain at kattigenahalli kuvempunagara cross road in ward no 05 byatarayanapura sub division3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division5. Improvement of roads and drain at nirantara layout in ward no 05 byatarayanapura sub division6. Improvement of drain and asphalting to road at agrahara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division
Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2018-19/P-8/03/QR
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. A. CHENNAREDDY
Test Method	Specification for Road & Bridge Works, MORT&H, Revision V.
Location	Bay
Material	Bituminous Concrete mix
Sample No	3
Date	20-Oct-2018

Sl. No.	Description	Unit	Test 1	Requirements as per MORT&H
1	Marshal Stability	KN	**9.5**	9 KN (min)
2	Marshal Flow	mm	**3.4**	2 – 4 mm
3	Percent of Air Voids in mix	%	**5.2**	3 – 6 %
4	Percent of Voids in Mineral Aggregates filled with Bitumen	%	**71**	65 – 75 %
5	Density	g/cc	**2.22**	2.22 g/cc

Note:

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Stability of Mix

Project Name	1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division2. Improvement of roads and drain at kattigenahalli kuvempunagara cross road in ward no 05 byatarayanapura sub division3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division5. Improvement of roads and drain at nirantara layout in ward no 05 byatarayanapura sub division6. Improvement of drain and asphalting to road at agrahara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division
Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2018-19/P-8/03/QR
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. A. CHENNAREDDY
Test Method	Specification for Road & Bridge Works, MORT&H, Revision V.
Location	Bay
Material	Bituminous Concrete mix
Sample No	4
Date	21-Oct-2018

Sl. No.	Description	Unit	Test 1	Requirements as per MORT&H
1	Marshal Stability	KN	**9.4**	9 KN (min)
2	Marshal Flow	mm	**3.45**	2 – 4 mm
3	Percent of Air Voids in mix	%	**5.6**	3 – 6 %
4	Percent of Voids in Mineral Aggregates filled with Bitumen	%	**70**	65 – 75 %
5	Density	g/cc	**2.21**	2.22 g/cc

Note:

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Asst. Executive Engineer
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Yelahanka Zone
Bangalore

Test Report
Stability of Mix

Project Name	1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division2. Improvement of roads and drain at kattigenahalli kuvempunagara cross road in ward no 05 byatarayanapura sub division3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division5. Improvement of roads and drain at nirantara layout in ward no 05 byatarayanapura sub division6. Improvement of drain and asphalting to road at agrahara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division
Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2018-19/P-8/03/QR
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. A. CHENNAREDDY
Test Method	Specification for Road & Bridge Works, MORT&H, Revision V.
Location	Bay
Material	Bituminous Concrete mix
Sample No	5
Date	21-Oct-2018

Sl. No.	Description	Unit	Test 1	Requirements as per MORT&H
1	Marshal Stability	KN	**9.5**	9 KN (min)
2	Marshal Flow	mm	**3.5**	2 – 4 mm
3	Percent of Air Voids in mix	%	**4.8**	3 – 6 %
4	Percent of Voids in Mineral Aggregates filled with Bitumen	%	**70.1**	65 – 75 %
5	Density	g/cc	**2.21**	2.22 g/cc

Note:

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Stability of Mix

Project Name	1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division2. Improvement of roads and drain at kattigenahalli kuvempunagara cross road in ward no 05 byatarayanapura sub division3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division5. Improvement of roads and drain at nirantara layout in ward no 05 byatarayanapura sub division6. Improvement of drain and asphalting to road at agrahara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division
Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2018-19/P-8/03/QR
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. A. CHENNAREDDY
Test Method	Specification for Road & Bridge Works, MORT&H, Revision V.
Location	Bay
Material	Bituminous Concrete mix
Sample No	6
Date	21-Oct-2018

Sl. No.	Description	Unit	Test 1	Requirements as per MORT&H
1	Marshal Stability	KN	**9.3**	9 KN (min)
2	Marshal Flow	mm	**3.2**	2 – 4 mm
3	Percent of Air Voids in mix	%	**5.1**	3 – 6 %
4	Percent of Voids in Mineral Aggregates filled with Bitumen	%	**72.5**	65 – 75 %
5	Density	g/cc	**2.22**	2.22 g/cc

Note:

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Binder Content and Mix Gradation

Project Name	1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division2. Improvement of roads and drain at kattigenahalli kuvempunagara cross road in ward no 05 byatarayanapura sub division3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division5. Improvement of roads and drain at nirantara layout in ward no 05 byatarayanapura sub division6. Improvement of drain and asphalting to road at agrahara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division
Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2018-19/P-8/03/QR
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. A. CHENNAREDDY
Test Method	Specification for Road & Bridge Works, MORT&H, Revision V.
Location	Bay
Material	Bituminous Concrete mix
Sample No	2
Date	20-Oct-2018

Sl. No.	Description	Unit	Computation	Test Result
1	Weight of Empty bowl before Extraction (E)	gm	Eb	1080
2	Weight of bowl + Sample before extraction (w_s)	gm	w_{sb}	1758
3	Weight of Sample taken for the test (S_b)	gm	$S_b = w_{sb} - Eb$	678
4	Weight of bowl + Sample after extraction (w_s)	gm	w_{sa}	1720
5	Weight of Sample after extraction (i.e. washed aggregates) (S_a)	gm	$S_a = w_{sa} - Eb$	640
6	Weight of Filter paper before extraction (F_b)	gm	F_b	2
7	Weight of Filter paper after extraction (F_a)	gm	F_a	4
8	Weight of filler on filter paper (F_d)	gm	$F_d = F_b - F_a$	2
9	Weight of Bitumen without considering Filter paper (W_b)	gm	W_b	38
10	Weight of the Bitumen with considering Filter paper (W_a)	gm	$W_a = w_b - F_d$	36
11	Percentage of the Bitumen (i.e. Binder Content) ($\%_B$)	(%)	$W_a / SbX100$	5.31

Sl. No.	I.S. Sieve size (mm)	Weight Retained (gm)	Percentage of weight Retained (%)	Cumulative Percentage of weight retained (%)	Cumulative % of Passing		Remarks
					Test Result	Gradation Limits as per MORT&H	
1	19.00	0.00	0.00	0.00	100.00	100.00	Gradation satisfies the MORT&H Grade II Specificati on for Bituminous Concrete
2	13.20	671.00	16.78	16.78	83.23	72-100	
3	9.50	419.00	10.48	27.25	72.75	70-88	
4	4.75	235.00	5.88	33.13	66.88	53-71	
5	2.36	487.00	12.18	45.30	54.70	42-58	
6	1.18	322.00	8.05	53.35	46.65	34-48	
7	0.60	425.00	10.63	63.98	36.03	26-38	
8	0.30	379.00	9.48	73.45	26.55	18-28	
9	0.15	382.00	9.55	83.00	17.00	12-20)	
10	0.08	373.00	9.33	92.33	7.68	(4-10)	

For Mecadez Core Technologies Private Limited

Authorised Signature

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Binder Content and Mix Gradation

Project Name	1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division2. Improvement of roads and drain at kattigenahalli kuvempunagara cross road in ward no 05 byatarayanapura sub division3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division5. Improvement of roads and drain at nirantara layout in ward no 05 byatarayanapura sub division6. Improvement of drain and asphalting to road at agrahara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division
Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2018-19/P-8/03/QR
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. A. CHENNAREDDY
Test Method	Specification for Road & Bridge Works, MORT&H, Revision V.
Location	Bay
Material	Bituminous Concrete mix
Sample No	3
Date	21-Oct-2018

Sl. No.	Description	Unit	Computation	Test Result
1	Weight of Empty bowl before Extraction (E)	gm	Eb	1080
2	Weight of bowl + Sample before extraction (w_s)	gm	w_{sb}	1805
3	Weight of Sample taken for the test (S_b)	gm	$S_b = w_{sb} - Eb$	725
4	Weight of bowl + Sample after extraction (w_s)	gm	w_{sa}	1764
5	Weight of Sample after extraction (i.e. washed aggregates) (S_a)	gm	$S_a = w_{sa} - Eb$	684
6	Weight of Filter paper before extraction (F_b)	gm	F_b	2
7	Weight of Filter paper after extraction (F_a)	gm	F_a	4
8	Weight of filler on filter paper (F_d)	gm	$F_d = F_b - F_a$	2
9	Weight of Bitumen without considering Filter paper (W_b)	gm	W_b	41
10	Weight of the Bitumen with considering Filter paper (W_a)	gm	$W_a = w_b - F_d$	39
11	Percentage of the Bitumen (i.e. Binder Content) ($\%_B$)	(%)	W_a/ SbX100	5.38

Sl. No.	I.S. Sieve size (mm)	Weight Retained (gm)	Percentage of weight Retained (%)	Cumulative Percentage of weight retained (%)	Cumulative % of Passing		Remarks
					Test Result	Gradation Limits as per MORT&H	
1	19.00	0.00	0.00	0.00	100.00	100.00	Gradation satisfies the MORT&H Grade II Specification for Bituminous Concrete
2	13.20	662.00	16.55	16.55	83.45	72-100	
3	9.50	412.00	10.30	26.85	73.15	70-88	
4	4.75	231.00	5.78	32.63	67.38	53-71	
5	2.36	481.00	12.03	44.65	55.35	42-58	
6	1.18	311.00	7.78	52.43	47.58	34-48	
7	0.60	416.00	10.40	62.83	37.18	26-38	
8	0.30	378.00	9.45	72.28	27.73	18-28	
9	0.15	368.00	9.20	81.48	18.53	12-20)	
10	0.08	360.00	9.00	90.48	9.53	(4-10)	

For Mecadez Core Technologies Private Limited

Authorised Signature

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report

Binder Content and Mix Gradation

Project Name	1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division2. Improvement of roads and drain at kattigenahalli kuvempunagara cross road in ward no 05 byatarayanapura sub division3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division5. Improvement of roads and drain at nirantara layout in ward no 05 byatarayanapura sub division6. Improvement of drain and asphalting to road at agrahara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division
Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2018-19/P-8/03/QR
Mix Type	Bituminous Concrete (BC)
Contractor	Sri. A. CHENNAREDDY
Test Method	Specification for Road & Bridge Works, MORT&H, Revision V.
Location	Bay
Material	Bituminous Concrete mix
Sample No	4
Date	21-Oct-2018

Sl. No.	Description	Unit	Computation	Test Result
1	Weight of Empty bowl before Extraction (E)	gm	Eb	1080
2	Weight of bowl + Sample before extraction (w_s)	gm	w_{sb}	1792
3	Weight of Sample taken for the test (S_b)	gm	$S_b = w_{sb} - Eb$	712
4	Weight of bowl + Sample after extraction (w_s)	gm	w_{sa}	1752
5	Weight of Sample after extraction (i.e. washed aggregates) (S_a)	gm	$S_a = w_{sa} - Eb$	672
6	Weight of Filter paper before extraction (F_b)	gm	F_b	2
7	Weight of Filter paper after extraction (F_a)	gm	F_a	4
8	Weight of filler on filter paper (F_d)	gm	$F_d = F_b - F_a$	2
9	Weight of Bitumen without considering Filter paper (W_b)	gm	W_b	40
10	Weight of the Bitumen with considering Filter paper (W_a)	gm	$W_a = w_b - F_d$	38
11	Percentage of the Bitumen (i.e. Binder Content) ($\%_B$)	(%)	$W_a / SbX100$	5.34

Sl. No.	I.S. Sieve size (mm)	Weight Retained (gm)	Percentage of weight Retained (%)	Cumulative Percentage of weight retained (%)	Cumulative % of Passing		Remarks
					Test Result	Gradation Limits as per MORT&H	
1	19.00	0.00	0.00	0.00	100.00	100.00	Gradation satisfies the MORT&H Grade II Specificati on for Bituminou s Concrete
2	13.20	665.00	16.63	16.63	83.38	72-100	
3	9.50	417.00	10.43	27.05	72.95	70-88	
4	4.75	232.00	5.80	32.85	67.15	53-71	
5	2.36	490.00	12.25	45.10	54.90	42-58	
6	1.18	314.00	7.85	52.95	47.05	34-48	
7	0.60	419.00	10.48	63.43	36.58	26-38	
8	0.30	382.00	9.55	72.98	27.03	18-28	
9	0.15	380.00	9.50	82.48	17.53	12-20)	
10	0.08	370.00	9.25	91.73	8.28	(4-10)	

For Mecadez Core Technologies Private Limited

Authorised Signature

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report

Rate of Spread of Prime Coat

Project Name	1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division2. Improvement of roads and drain at kattigenahalli kuvempunagara cross road in ward no 05 byatarayanapura sub division3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division5. Improvement of roads and drain at nirantara layout in ward no 05 byatarayanapura sub division6. Improvement of drain and asphalting to road at agrahara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division
Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2018-19/P-8/03/QR
Mix Type	Wet Mix Macadam
Contractor	Sri. A. CHENNAREDDY
Location	At Site
Material	Bitumen
Sample No	1
Date	7-Oct-2018

Sl. No.	Determination	Unit	Test No 1		
			Longitudinal Distribution		
1	Size of Plate (mxn)	m^2	0.2x0.2	0.2x0.2	0.2x0.2
2	Area of the Plate (a)	m^2	0.04	0.04	0.04
3	Initial weight of the empty Plate (b)	kg	1.642	1.643	1.643
4	Final weight of plate after application of Tack Coat (c)	kg	1.657	1.655	1.651
5	Weight of Prime coat/ Tack Coat (d = c-b)	kg	0.015	0.012	0.008
6	Rate of spread (d/a)	kg / m^2	0.375	0.300	0.200
7	Average	kg / m^2	0.292		
8	Specified Limit	kg / m^2	Not less than 0.6 kg / m^2		

Results: Rate of Spread of Prime Coat / Tack Coat is: 0.292 kg / m2

Note:

i. The results indicated above are based on the tests carried out on the sample at site.

ii. The results relate only to the items tested.

iii. This test report should not be reproduced except in full, without written approval of this laboratory.

iv. Any query regarding the report must be reported immediately.

For Mecadez Core Technologies Private Limited

Authorised Signature

Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Rate of Spread of Prime Coat

Project Name	1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division2. Improvement of roads and drain at kattigenahalli kuvempunagara cross road in ward no 05 byatarayanapura sub division3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division5. Improvement of roads and drain at nirantara layout in ward no 05 byatarayanapura sub division6. Improvement of drain and asphalting to road at agrahara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division
Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2018-19/P-8/03/QR
Mix Type	Wet Mix Macadam
Contractor	Sri. A. CHENNAREDDY
Location	At Site
Material	Bitumen
Sample No	2
Date	7-Oct-2018

Sl. No.	Determination	Unit	Test No 1		
			Longitudinal Distribution		
1	Size of Plate (mxn)	m^2	0.2x0.2	0.2x0.2	0.2x0.2
2	Area of the Plate (a)	m^2	0.04	0.04	0.04
3	Initial weight of the empty Plate (b)	kg	1.641	1.641	1.641
4	Final weight of plate after application of Tack Coat (c)	kg	1.656	1.654	1.65
5	Weight of Prime coat/ Tack Coat (d = c-b)	kg	0.015	0.013	0.009
6	Rate of spread (d/a)	kg / m^2	0.375	0.325	0.225
7	Average	kg / m^2	0.308		
8	Specified Limit	kg / m^2	Not less than 0.6 kg / m^2		

Results: Rate of Spread of Prime Coat / Tack Coat is: 0.308 kg / m2

Note:

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For Mecadez Core Technologies Private Limited

Authorised Signature

Asst. Executive Enginee
Project Divisior
Yelahanka Zone
Bangalore

Test Report
Rate of Spread of Prime Coat

Project Name	1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division2. Improvement of roads and drain at kattigenahalli kuvempunagara cross road in ward no 05 byatarayanapura sub division3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division5. Improvement of roads and drain at nirantara layout in ward no 05 byatarayanapura sub division6. Improvement of drain and asphalting to road at agrahara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division
Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2018-19/P-8/03/QR
Mix Type	Wet Mix Macadam
Contractor	Sri. A. CHENNAREDDY
Location	At Site
Material	Bitumen
Sample No	3
Date	7-Oct-2018

Sl. No.	Determination	Unit	Test No 1		
			Longitudinal Distribution		
1	Size of Plate (mxn)	m^2	0.2x0.2	0.2x0.2	0.2x0.2
2	Area of the Plate (a)	m^2	0.04	0.04	0.04
3	Initial weight of the empty Plate (b)	kg	1.641	1.643	1.643
4	Final weight of plate after application of Tack Coat (c)	kg	1.656	1.655	1.651
5	Weight of Prime coat/ Tack Coat (d = c-b)	kg	0.015	0.012	0.008
6	Rate of spread (d/a)	kg / m^2	0.375	0.3	0.2
7	Average	kg / m^2	0.342		
8	Specified Limit	kg / m^2	Not less than 0.6 kg / m^2		

Results: Rate of Spread of Prime Coat / Tack Coat is: 0.342 kg / m2

Note:

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report

Rate of Spread of Prime Coat

Project Name	1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division2. Improvement of roads and drain at kattigenahalli kuvempunagara cross road in ward no 05 byatarayanapura sub division3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division5. Improvement of roads and drain at nirantara layout in ward no 05 byatarayanapura sub division6. Improvement of drain and asphalting to road at agrahara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division
Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2018-19/P-8/03/QR
Mix Type	Wet Mix Macadam
Contractor	Sri. A. CHENNAREDDY
Location	At Site
Material	Bitumen
Sample No	4
Date	8-Oct-2018

Sl. No.	Determination	Unit	Test No 1		
			Longitudinal Distribution		
1	Size of Plate (mxn)	m^2	0.2x0.2	0.2x0.2	0.2x0.2
2	Area of the Plate (a)	m^2	0.04	0.04	0.04
3	Initial weight of the empty Plate (b)	kg	1.641	1.641	1.641
4	Final weight of plate after application of Tack Coat (c)	kg	1.657	1.655	1.649
5	Weight of Prime coat/ Tack Coat (d = c-b)	kg	0.016	0.014	0.008
6	Rate of spread (d/a)	kg / m^2	0.400	0.350	0.200
7	Average	kg / m^2	0.317		
8	Specified Limit	kg / m^2	Not less than 0.6 kg / m²		

Results: Rate of Spread of Prime Coat / Tack Coat is: 0.317 kg / m2

Note:

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Asst. Executive Engineer
Project Division
Yelahanka Zone
Bangalore

Test Report
Rate of Spread of Prime Coat

Project Name	1. Improvement of roads and drain at kogilu layout main road and cross road in ward no 05 byatarayanapura sub division2. Improvement of roads and drain at kattigenahalli kuvempunagara cross road in ward no 05 byatarayanapura sub division3. Improvement of drain at dwarakanagara srirama temple road in ward no 05 byatarayanapura sub division4. Improvement of roads and drain at kattigenahalli surrounding area in ward no 05 byatarayanapura sub division5. Improvement of roads and drain at nirantara layout in ward no 05 byatarayanapura sub division6. Improvement of drain and asphalting to road at agrahara layout harihara temple surrounding area in ward no 05 byatarayanapura sub division
Client	Executive Engineer Project Division Yelahanka Zone
Job No	MCTPL/BBMP/Project Division Yelahanka Zone /PMC/2018-19/P-8/03/QR
Mix Type	Wet Mix Macadam
Contractor	Sri. A. CHENNAREDDY
Location	At Site
Material	Bitumen
Sample No	5
Date	8-Oct-2018

Sl. No.	Determination	Unit	Test No 1		
			Longitudinal Distribution		
1	Size of Plate (mxn)	m^2	0.2x0.2	0.2x0.2	0.2x0.2
2	Area of the Plate (a)	m^2	0.04	0.04	0.04
3	Initial weight of the empty Plate (b)	kg	1.641	1.641	1.641
4	Final weight of plate after application of Tack Coat (c)	kg	1.655	1.657	1.653
5	Weight of Prime coat/ Tack Coat (d = c-b)	kg	0.014	0.016	0.012
6	Rate of spread (d/a)	kg / m^2	0.350	0.400	0.300
7	Average	kg / m^2	0.350		
8	Specified Limit	kg / m^2	Not less than 0.6 kg / m^2		

Results: Rate of Spread of Prime Coat / Tack Coat is: 0.350 kg / m2

Note:

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